

## Memorandum

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Memo No: 1116 **Declass Review, NIMA/DoD**

TO: Contracting Officer STATOTHR

FROM: [REDACTED]

SUBJECT: Monthly Progress Report, Contract [REDACTED]

DATE: 7 April 1964

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A. General

The progress report is separated into several sections, the first of which is a percentage summary of the schedule. This is followed by a statement on the progress and remarks on work completed, work in process and planned work effort. Finally a table showing each task and the percentage complete is supplied.

The progress this month has been slightly slower than desirable. Our vendor for the coordinatograph tracks had one of these crack in the hardening process and a new one had to be ground. The ball screw vendor has reported that the screws were not yet within tolerance and could not be shipped. The vacuum platen vendor was called for a progress report and he claims not to have even received our purchase order. We have the original order copy and can verify that it was sent but it must have been lost in the mail or at his plant. This has never happened before and he said that he will place our order on a rush basis.

On top of this one of our principal engineers has had a lengthy bout with the German Measles and his particular task portion has fallen behind schedule. We are in constant touch with these critical vendors however, and are doing everything possible to expedite matters.

B. Schedule

	<u>Major Project Tasks</u>	<u>Percent Complete</u>	<u>Percent Required By Project Schedule</u>
I	System Engineering	100%	100%
II	Subsystem Design	90%	100%
III	Construction and/or		

IV	Testing and Debugging	15%	30%
V	Final Inspection	0%	0%

### C. Summary of Progress

#### 1. Room Specifications STATOTHR

Earlier this month [REDACTED] called from GSA to discuss the cooling and power problems. We sent [REDACTED] a sketch confirming our phone discussion. STATOTHR

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#### 2. [REDACTED] STATOTHR

We spoke with Mr. [REDACTED] about the exact choice of pins for the 20 data bits, 2 Sign bits and 8 Special functions. Apparently there is some flexibility in the choice of these pins and the programmer can select an arrangement with certain restrictions that will make his work easier. We are not sure how this works out but it should be examined.

#### 3. Electronic Control

Some of the most complex circuits in this system are contained in the velocity control section. These have very precise requirements upon them for speed of response, accuracy and stability. To accelerate their life test, the breadboard circuits have been performed almost entirely in a Tenny environmental test chamber which cycles the ambient temperature from near zero to over 100°F periodically. The test is actually more severe than the environment expected but this activity hastens the demise of susceptible components. Even under these conditions the velocity control circuits do work and now they will now be removed from the chamber and placed into the electronic racks on card modules.

D. Planned Work Effort

The general schedule is as follows:

April

1. Use servo test apparatus
2. Transfer velocity loop breadboard circuits to rack modules.

May

1. Test servos on coordinatograph

TWT/bd

Progress Report on Project Tasks

Project Tasks	Labor Effort
Percent Complete	
1. <u>System Engineering - Develop Subassembly Specifications</u>	
A. <u>Coordination Graph</u>	
1. Structure	100
2. Drive System	100
3. Human Engineering	100
4. Paper Feed Subsystem	100
5. Writing Head	100
B. Electronics Control	100

## Progress Report on Project Tasks

Project Tasks	Labor Effort	Percent Complete
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II. <u>Subsystem Design</u>		
A. <u>Coordinatograph</u>		
1. Structure		
a. Support and Table	100	
b. Gantry and Carriage	100	
c. Vacuum Platen	100	
2. Drive System		
a. Power Control	100	
b. Power Supply	50	
c. Test Apparatus	100	
d. Heat Load Calculations	100	
3. Human Engineering		
a. Manual Controls	75	
b. Cabinetry	100	
4. Paper Feed Subsystem	75	
5. Writing Head	100	
B. <u>Electronic Control</u>		
1. Detailed Logic	75	
2. Special Circuit Design	75	
3. Rack and Cable Allotment	50	
4. Axis Instrumentation	100	
5. Heat Load Calculation	100	

## Progress Report on Project Tasks

Project Tasks	Labor Effort
Percent Complete	
III. <u>Construction and/or Purchasing and Assembly</u>	
A. <u>Coordinating</u>	
1. Structure	
a. Support and Table	75
b. Gantry and Carriage	75
c. Vacuum Platen	50
2. Drive system	
a. Power Control	25
b. Power Supply	10
c. Servo system Test Apparatus	75
d. Temperature Sensors	10
3. Human Engineering	
a. Manual Controls	50
b. Cabinetry	25
4. Paper Feed subsystem	0
5. Writing Head	10
B. <u>Electronic Control</u>	
1. Standard Logic Board Fabrication	100
2. Special Logic Board Fabrication	25
3. Intra-rack Wiring	25
4. Inter rack wiring	10
5. Axis Instrumentation	100

## Progress Report on Project Tasks

Project Tasks		Labour Effort	Percent Complete
<u>1. Test Stand Design</u>			
<u>    a. Mechanical Design</u>			
1. Structure			
a. Support and Table		0	
b. Entry and Carriage		0	
c. Accumulation		0	
2. Drive System			
a. Power Control		0	
b. Power Supply		0	
c. Test Apparatus		0	
d. Cooling System		0	
3. Human Engineering			
a. Manual Controls		0	
b. Cabinetry		0	
4. Paper Feed Subsystem		0	
5. Writing Head		0	
<u>2. Electronic Control</u>			
1. Logic Circuits		10	
2. Test Instrumentation		0	